REMARKS

Claims 1 – 16 are pending in the application. Claims 17 – 21 have been added. Claims 1 – 21 accordingly remain pending in the application.

A marked-up copy of the amended claims is provided herewith illustrating the changes.

The Drawings and Abstract have been amended to overcome the Examiner's rejections.

The Specification has been amended.

Claims 8 – 12 and 15 – 16 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The claims have been amended to overcome this rejection.

Claims 1 – 16 stand rejected under 35 U.S.C. 102(a) as being anticipated by Hashimoto.

Hashimoto relates to an card connector that includes a mechanism for ejecting a card (e.g., a flash memory card - see col 3, first paragraphs) from the connector. In order to eject a card, the user depresses a member (called a lever) 50 that slides along the side of the connector and acts upon a cam 70 with an ejection leg 71 that causes the card to be ejected. A spring 90 is operable on the lever 50 following ejection to return the lever to the initial position (see col 3, second and third paragraphs).

It is to be noted that Hashimoto does not provide any mechanism to assist with the insertion of a circuit board, but rather relies on the user simply inserting a circuit board directly by hand without the use of any lever mechanism. There is, moreover, no disclosure of any part of the Hashimoto mechanism being mounted on or with respect to the card to be ejected.

In contradistinction to Hashimoto, and as set out in the proposed amended Claim 1, an aspect of the present invention provides a mechanism comprising "an engaging projection

mountable with respect to one of said circuit board and said back plane" and "a lever arm pivotally mountable with respect to the other of said circuit board and said back plane." The lever arm is configured "to engage said engaging projection" and is operable "to apply an engaging force to said engaging projection to urge said circuit board towards said back plane." This engaging force "causes said first and second parts of the connector to engage." Moreover, the engagement of said lever arm and said engaging projection "is provided by a flexible coupling which allows relative movement of said circuit board with respect to said back plane and a biasing force which biases said circuit board towards said back plane."

Hashimoto neither discloses nor suggests this combination of features. Accordingly, claim 1 is believed to patentably distinguish over Hashimoto.

Independent Claims 6, 7, 8, 12, 13, 17, and 21 each recites a combination including at least some of the above-noted distinguishing features of claim 1, and thus each is also believed to patentably distinguish over Hashimoto.

In as much as the independent claims recite allowable subject matter, all of the dependent claims are also believed to be allowable.

The Commissioner is authorized to charge any fees which may be required, or credit any overpayment, to Conley, Rose & Tayon, P.C. Deposit Account No. 501505\5681-03400\BNK.

Respectfully submitted,

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Marked-Up Version of Amended Abstract

An ejector mechanism (14) for a circuit board (2^1) and back plane (6^1), the ejector mechanism being operable to provide resiliently biased engagement between a first part (10) of an electrical connector (8) and a mutually engaging second part (12) of the electrical connector (8), the first and second parts of the electrical connector providing electrical connection for a plurality of electrical channels between the circuit board on which the first part is mounted and the back plane on which the second part is mounted. The ejector mechanism comprises an engaging projection (42) and a lever arm [(42)] (40) pivotally mounted on one of the circuit board and the back plane and configured to engage the engaging projection [(40)] 42 forming part of the other of the circuit board and the back plane[, the lever arm [(42)] (40) being operable to apply an engaging force to the circuit board with respect to the back plane, when moved from a first position to a second position, which engaging force causes the first and second parts of the connector to engage, wherein the engagement of the lever arm [(42)] (40) and the engaging projection [(40)] 42 is provided by a flexible coupling which allows relative movement of the circuit board away from the back plane and a biasing force which biases the circuit board towards the back plane].

Marked-Up Version of Amended Portion of Specification

In the second embodiment, the relative movement of the circuit board 2^1 away [form] from the system chassis 6^1 is provided by the slidable coupling of the engaging projection to the system chassis 6^1. The biasing force of the circuit board 2^1 to the system chassis is provided by the spring 62 which is secured to the slidably mounted engaging projection 54 at one end and to the other end to the system chassis on the coupling 64. As before, as the lever arm 50 is lowered so that the arm is flush with the edge 22^1, thereby providing the force for engaging the first and second parts of the electrical connector, the engaging projection 54 is arranged to be slidably mounted in the slidable mounting 56 to the effect that the circuit board can move away from the chassis thereby relieving any strain which may occur as a result of the manufacturing tolerances combining to reduce the relative distances between the first and second parts of the connector. The biasing spring 62 however forces the circuit board towards the chassis in opposition to the slidable movement away from the chassis. Again the slideably mounted engaging projection, in combination with the biasing spring provide a flexible coupling between the engaging projection and the lever arm.

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Marked Up Version of Amended Claims

1. An ejector mechanism for a circuit board and back plane operable to provide resiliently biased engagement between a first part of an electrical connector and a mutually engaging second part of said electrical connector, said first and second parts of said electrical connector providing electrical connection for a plurality of electrical channels between said circuit board on which said first part is mounted and said back plane on which said second part is mounted, said ejector mechanism comprising

an engaging projection mountable with respect to one of said circuit board and said back plane and

a lever arm pivotally mountable with respect to the other [mounted on one of] said circuit board and said back plane and configured to engage said engaging projection [forming part of the other of said circuit board and said back plane], said lever arm being operable to apply an engaging force to said engaging projection to urge said circuit board towards [with respect to] said back plane[,] when moved from a first position to a second position, which engaging force causes said first and second parts of the connector to engage, wherein said engagement of said lever arm and said engaging projection is provided by a flexible coupling which allows relative movement of said circuit board with respect to [away from said] back plane and a biasing force which biases said circuit board towards said back plane.

6. An assembly including a [A] circuit board and a back plane comprising, respectively, a first part of an electrical connector and a mutually engaging second part of said electrical connector, said first and second parts of said electrical connector providing electrical connection for a plurality of electrical channels between said circuit board on which said first part is mounted and said back plane on which said second part is mounted, and

an ejector mechanism having an engaging projection mounted with respect to one of said circuit board and said back plane and

a lever arm pivotally mounted with respect to the other [on one] of said circuit board and said back plane and configured to engage said engaging projection [forming part of the other of said circuit board and said back plane], said lever arm being operable to apply an engaging force

to said engaging projection to urge said circuit board [with respect to] towards said [system] back plane[,] when moved from a first position to a second position, which engaging force causes said first and second parts of the connector to engage, wherein said engagement of said lever arm and said engaging projection is provided by a flexible coupling which allows relative movement of said circuit board with respect to [away from] said back plane and a biasing force which biases said circuit board towards said back plane.

7. A circuit board comprising

a first part of an electrical connector arranged to mutually engage a second part of said electrical connector, said first and second parts of said electrical connector providing electrical connection for a plurality of electrical channels for said circuit board,

a lever arm pivotally mounted on said circuit board and configured to engage an engaging projection, said lever arm being operable to apply an engaging force to said circuit board by engagement with said engaging projection[,] when moved from a first position to a second position, which engaging force causes said first part of said electrical connector to engage with said second part of the connector, wherein said lever arm is slidably mounted on said circuit board and a biasing member is coupled to said pivotable mounting and said circuit board, said slidable mounting providing [said] relative movement between said lever arm [with respect to] and said engaging projection, said biasing member providing a [said] biasing force against said slideable movement.

8. A [system chassis or circuit board] back plane arranged to receive at least one circuit board, said [system chassis or circuit board] back plane comprising

at least one second part of an electrical connector, mounted on said back plane and engageable with a first part of said electrical connector mounted on said circuit board, and

an engaging projection, engageable with a lever arm formed on said circuit board, wherein said engaging projection provides a flexible coupling which allows relative movement of said circuit board with respect to [away from] said back plane and a biasing force which biases said circuit board towards said back plane.

12. A [system chassis or circuit board] back plane arranged to receive at least one circuit board, said [system chassis or circuit board] back plane comprising

at least one second part of an electrical connector, mounted on said back plane and positioned and arranged to mutually engage a first part of said electrical connector mounted on said circuit board

a lever arm pivotally mounted on said back plane and configured to engage an engaging projection on said circuit board, said lever arm being operable to apply an engaging force to said circuit board by engagement with said engaging projection[,] when moved from a first position to a second position, which engaging force causes said first part of said electrical connector to engage with said second part of the connector, wherein said lever arm is [a] slidably mounted on said back plane and a biasing member is coupled to said pivotable mounting and said back plane, said slidable mounting providing [said] relative movement between said lever arm [with respect to] and said engaging projection, said biasing member providing [said] a biasing force against said slideable movement.

13. A circuit board comprising

a first part of an electrical connector arranged to mutually engage a second part of said electrical connector, said first and second parts of said electrical connector providing electrical connection for a plurality of electrical channels for said circuit board,

an engaging projection, positioned and arranged with respect to a lever arm of an ejector mechanism, wherein said engaging projection provides a flexible coupling which allows relative movement [of said circuit board] in a direction opposite to that applied by said [level] lever arm and a biasing force which biases said circuit board in said direction applied by said lever arm.

15. A circuit board as claimed in Claim 13, wherein said engaging projection is formed by a rigid member slidably mounted with respect to a [on said] back plane and a biasing member connected to said circuit board and said engaging projection, said slidable mounting providing said relative movement and said biasing member providing said biasing force.

Please add the following new claims:

17. A system chassis comprising

a back plane arranged to receive at least one circuit board,

at least one second part of an electrical connector, mounted on said back plane and engageable with a first part of said electrical connector mounted on said circuit board, and

an engaging projection, engageable with a lever arm formed on said circuit board, wherein said engaging projection provides a flexible coupling which allows relative movement of said circuit board with respect to said back plane and a biasing force which biases said circuit board towards said back plane.

18. A system chassis as claimed in Claim 17, wherein said engaging projection is formed from a resiliently deformable material, said material providing said relative movement and said biasing force of said circuit board towards said back plane.

19. A system chassis as claimed in Claim 17, wherein said engaging projection is formed by a rigid member slidably mounted on said back plane and a biasing member connected to said back plane and said engaging projection, said slidable mounting providing said relative movement and said biasing member providing said biasing force for biasing said circuit board towards said back plane.

20. A system chassis as claimed in Claim 19, wherein said biasing member is a spring or a resiliently deformable member.

21. A system chassis comprising

a back plane arranged to receive at least one circuit board,

at least one second part of an electrical connector, mounted on said back plane and positioned and arranged to mutually engage a first part of said electrical connector mounted on said circuit board

a lever arm pivotally mounted on said back plane and configured to engage an engaging projection on said circuit board, said lever arm being operable to apply an engaging force to said circuit board by engagement with said engaging projection when moved from a first position to a second position, which engaging force causes said first part of said electrical connector to engage with said second part of the connector, wherein said lever arm is slidably mounted on said back plane and a biasing member is coupled to said pivotable mounting and said back plane, said slidable mounting providing relative movement between said lever arm and said engaging projection, said biasing member providing a biasing force against said slideable movement.